APPENDIX B:

SCOPING SUMMARY REPORT

FOR

IMPERIAL-MEXICALI 230-kV TRANSMISSION LINES ENVIRONMENTAL IMPACT STATEMENT

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ENVIRONMENTAL IMPACT STATEMENT SCOPING PROCESS

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for

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CONTENTS

NOTATION

The following is a list of acronyms, initialisms, and abbreviations (including units of measure) used in this document.

BACT	best available control technology
BLM	Bureau of Land Management
CEA	Comprehensive Cumulative Analysis
CO	carbon monoxide
DOE	U.S. Department of Energy
EA	environmental assessment
EIS	environmental impact statement
EPA	U.S. Environmental Protection Agency
FERC	Federal Energy Regulatory Commission
FONSI	Finding of No Significant Impact
kV	kilovolt(s)
NEPA	National Environmental Policy Act
NH_3	ammonia
NOI	Notice of Intent
NO_x	nitrogen oxides
$PM_{2.5}$	particulate matter with a mean aerodynamic diameter of 2.5 µm or less
PM_{10}	particulate matter with a mean aerodynamic diameter of 10 µm or less
ppm	part(s) per million
SCR	selective catalytic reduction system
Sempra	Sempra Energy Resources
TDS	total dissolved solids

SCOPING SUMMARY REPORT
FOR
IMPERIAL-MEXICALI 230-kV TRANSMISSION LINES
ENVIRONMENTAL IMPACT STATEMENT

1 INTRODUCTION

On October 30, 2003, the U.S. Department of Energy (DOE) issued a Notice of Intent (NOI) in the *Federal Register* (*Federal Register*, Volume 68, page 61796 [68 FR 61796]) to prepare an environmental impact statement (EIS) concerning the issuance of Presidential permits and two separate right-of-way (ROW) grants to Baja California Power, Inc. (Intergen) and Sempra Energy Resources (Sempra). The permits are required to allow the transmission of electric power from two new power plants built by the respective companies in Mexico to the United States. The ROWs granted as part of the action would be for the construction of two 230-kV transmission line routes needed to transmit the power to the United States. The power lines would be constructed on Federal land managed by the U.S. Department of the Interior's Bureau of Land Management (BLM). The lines would be in Imperial County, California, and would be located west of Calexico and El Centro, California. The lines would run to the San Diego Gas & Electric Company's Imperial Valley Substation. The EIS will examine the impacts associated with construction and operation of the transmission lines, as well as the impacts in the United States from operation of the three natural-gas fired combined-cycle units built in Mexico for power export to the United States.

The public scoping period began with the publication of the NOI on October 30, 2003, and ended December 1, 2003. Two public scoping meetings, hosted by DOE and BLM, were held on November 20, 2003, one in El Centro, California, and the other in Calexico, California. About 30 people attended each meeting. Eleven people provided oral comments at the El Centro meeting, nine at the Calexico meeting, and 17 individuals and organizations provided written comments.

2 SCOPING COMMENT SUMMARY AND EIS ANALYSIS

2.1 INTRODUCTION

A summary of issues and concerns raised by commentors during the scoping period is presented in this section. Each subsection presents comments related to that topic area, along with a discussion (under the heading *EIS Analysis*) of what is or is not covered in the EIS. Briefly, issues to be analyzed in depth pertain to the impacts in the United States of construction and operation of the two transmission lines and of the operation of the three export units in Mexico.

2.2 SUMMARY OF COMMENTS

Several commentors expressed their pleasure that the DOE was conducting a full EIS for the proposed action. Many of the comments focused on the adverse impacts on human health, air quality, and water quality associated with the operation of the power plants and technologies (e.g., selective catalytic reduction [SCR] systems and dry cooling) that could be used to reduce those impacts.

2.2.1 National Environmental Policy Act (NEPA) Process/Decision Making

Connected Actions: Several commentors suggested that the Federal agency actions analyzed in the EIS (i.e., DOE's issuance of Presidential permits for the Sempra and Intergen transmission line projects to cross the U.S.-Mexico border and BLM's issuance of two ROW grants for the transmission lines to cross BLM-administered land) are connected actions within the meaning of NEPA, and therefore are required to be analyzed in a single NEPA document. In addition, commentors suggested that the Federal Energy Regulatory Commission's (FERC's) actions to issue a Certificate of Convenience and Necessity and a Presidential permit to cross the border to North Baja Pipeline, LLC, for the North Baja Natural Gas Pipeline Project, and the two power plants in Mexico are connected actions.

EIS Analysis: While the projects are complementary, they are independent actions that serve distinct functions and that can proceed separately. Under the Council of Environmental Quality's regulations implementing NEPA (Title 40, Part 1508.25 of the *Code of Federal Regulations* [40 CFR 1508.25]), actions are connected if they (1) automatically trigger other actions which may require EISs; (2) cannot proceed unless other actions are taken; or (3) are interdependent parts of a larger action. The DOE and BLM actions related to this EIS will not automatically trigger FERC's actions related to the gas pipeline, or vice versa. The pipeline project will proceed regardless of whether DOE and BLM actions are taken, and, conversely, Sempra and Intergen will proceed with the transmission line projects regardless of whether the gas pipeline is built. Although DOE and BLM have no regulatory jurisdiction over the power plants, the EIS will analyze the impacts in the United States that these facilities have on air and water quality, and their contribution to cumulative impacts.

Assessment of Impacts in Mexico: Several commentors stated that the link between the transmission lines and the power plants warrants an examination of the potential construction and operation impacts in both the United States and in Mexico. Several commentors stated that an international board should study the environmental effects of the project. The group would examine all environmental effects on both sides of the border and identify the impacts.

EIS Analysis: The proposed action in this case is the granting of the Presidential permits and the granting of ROWs for the transmission lines. DOE and BLM have no jurisdiction over power plants located in Mexico. The plants' impacts are considered only to the degree that they contribute to cumulative impacts. That is, the impacts are assessed for the same project region locations as those of the transmission line impacts, which are confined to the United States in this analysis. Therefore, the assessment of the power plants' impacts on Mexico is outside the scope of the analysis. Related to these issues are the requests for a binational assessment of impacts from the proposed project. DOE and BLM believe that NEPA is the appropriate vehicle for assessing the impacts from this project.

Consultation: One group suggested that additional consultations are needed with representatives of Imperial County to assess how the proposed projects would conform to local regulations. It was also suggested that regional military bases be consulted directly.

EIS Analysis: DOE and BLM consulted with the Imperial County Air Pollution Control District Office. Information provided by this office is used in the EIS. There will be no formal consultation with the military.

Conditioned Presidential Permits: Commentors suggested that certain mitigation and technology upgrades be added as conditional requirements of the Presidential permits.

EIS Analysis: Alternative technologies that could mitigate impacts are analyzed under one of the alternatives in the EIS. If DOE chooses that alternative, one or both permits would be conditioned on the use of the specific alternative technologies.

Siting of the Transmission Lines and the Gas Pipeline: A commentor suggested that an appropriate, safe distance between the transmission line and gas pipeline be determined to prevent accidental ignition of the pipeline from an electrical discharge.

EIS Analysis: The EIS is concerned with any potential impacts from the construction of the transmission lines on BLM land. The nearest pipeline is more than 50 miles away from the transmission line, which is far enough away to remove concern. Therefore, the EIS does not specifically discuss safe distances between gas pipelines and transmission lines.

2.2.2 Human Health Issues

Health Effects from Operation of Power Plants: Numerous commentors expressed concern over the health and safety effects from the operation of the two power plants in Mexicali on human health in Imperial County. Many commentors stated that the unusually high asthma rates (especially for children) for the county are the result of poor air quality in Imperial Valley and that the construction and operation of additional power plants could only make matters worse. The commentors requested full disclosure of the process by which the health effects from the plants are analyzed.

EIS Analysis: The EIS examines the human health effects in the United States resulting from construction and operation of the transmission lines. The analysis also examines the effects on the U.S. population of operating the power plants. Asthma is discussed in the EIS, but there is not a detailed study of childhood and teenage asthma.

Comprehensive Health Risk Assessment: Several commentors recommended that a comprehensive health risk assessment be conducted for Imperial Valley. This study would examine the links between the air pollution and the health issues (including cancer, birth defects, asthma) occurring in the valley. Most of the commentors requesting this study wanted it to include both Mexico and the United States.

EIS Analysis: A comprehensive health risk assessment of health issues is included in Appendix H of the EIS.

2.2.3 Water Quality and the Salton Sea

General Water Issues: Several commentors expressed concern over the effects that the proposed action would have on water availability and quality in the region. Specific issues raised include concerns over a reduction in the flow of the New River resulting from the cooling processes at the power plants; an increase in salinity of the Salton Sea from the decreased flow in the New River; and an increase in the temperature of the New River from the heated water being discharged from the plants to the river. Commentors also expressed concern about the quantity of total dissolved solids (TDS) in the water being discharged into the New River from the power plants.

Effects on the Salton Sea: Many commentors expressed concern over the effects of the power plants on the Salton Sea. The main concern was that the use of water from the New River (one of two rivers that feed the Salton Sea) for the wet cooling system at Mexicali would reduce the flow of water into the Salton Sea from the New River, causing the Sea to shrink and the salts to become more concentrated. It was noted that the Sea and its nearby wetlands provide habitat for numerous species of fish and birds (including migratory birds species), and that even a small increase in salinity could have an adverse effect on the recreational fishing industry and the general ecology of the region. Also, the cumulative effects of this and other actions could cause more severe effects.

EIS Analysis: The EIS addresses potential water quality impacts of the proposed actions in the United States, with particular attention to impacts on the New River and the Salton Sea. The impacts on water quantity and quality associated with wet cooling (evaporation) systems are examined and compared to impacts expected from dry cooling or wet-dry cooling.

2.2.4 Air Quality

General Air Issues: Many commentors expressed concern that the power plants would further degrade the air quality in a region with existing air quality problems. Specifically, commentors expressed concern over the amounts of nitrogen oxides (NO_x), carbon monoxide (CO), and particulate matter with a mean aerodynamic diameter of 2.5 µm or less and a diameter of 10 µm or less ($PM_{2.5}$ and PM_{10}, respectively) that would be emitted by the power plants. There was also concern over increases in ozone (O_3) resulting from operation of the power plants.

EIS Analysis: Potential air quality impacts of the proposed action are addressed, as will the changes in emissions associated with installing SCR systems. The EIS examines pollutants considered to be key indicators of air quality, including CO, NO_x, O_3, sulfur dioxide (SO_2), lead, PM_{10} and $PM_{2.5}$. The analysis also specifically examines the contribution of plant emissions to NH_3 and secondary O_3 production in the region.

Air Analysis Parameters: Several people commented on aspects of the air analysis. One suggestion stated that if Prevention of Significant Deterioration was the standard for determining air quality impacts, the amount of ammonia (NH_3) slip allowed for this analysis should be 3.5 parts per million (ppm). A second commentor suggested that Sempra cannot claim any air credits for the introduction of natural gas fuel to Mexicali because the claimed reduction of other fuels as a consequence is not verifiable or quantifiable. A commentor noted that the analysis previously conducted on the power plant air emissions assumed that the region was an attainment area, when neither Mexicali nor El Centro are attainment areas.

Another commentor stated that the air samples taken at the border do not accurately reflect maximum exposure concentrations. The commentor stated that impacts must be analyzed away from the border because of stack heights and their proximity to the border.

Another commentor indicated that the air analysis should consider the extreme temperatures the region experiences and the effect that these temperatures have on air quality.

The analysis is limited to impacts in the United States on air quality in compliance with NEPA requirements.

2.2.5 Biological Resources

Some commentors requested that the EIS consider the impacts of the project on protected, threatened, endangered, or sensitive animals and plants and their habitats. One commentor was concerned that a decrease in surface water area of the Salton Sea would concentrate birds in a smaller area and the resulting increased concentration of waste would accelerate "biological processes" in that habitat. Another commentor was concerned that an increase in salinity, decrease in flow, and/or increase in water temperature could negatively impact wetland projects. A few commentors suggested that adverse impacts to the Salton Sea from the proposed action could have cumulative effects on the bird populations that utilize the lake. The commentors indicated that this could constitute a violation of the Migratory Bird Treaty Act.

EIS Analysis: The EIS assesses the potential environmental impacts of the construction and operation of the transmission lines and the operation of the power plants on ecological resources, including wetlands, plant and animal species, and threatened and endangered species and critical habitat that may occur in the area. The EIS specifically assesses the impacts from the construction of the transmission lines on the flat-tailed horned lizard, and the effects of water use by the proposed actions on the New River habitat and on the fish and bird populations at the Salton Sea. The EIS includes a brief discussion of the Migratory Bird Treaty Act. Impacts to biological resources in Mexico are within the scope of the EIS.

2.2.6 Cultural Resources

A commentor requested that the impacts of the project on cultural or historic resources on both sides of the border be considered as part of the analysis in the EIS.

EIS Analysis: The EIS assesses the potential impacts of the proposed action on the cultural, historic, and archaeological resources in the United States. Potential mitigation measures for any impacts are also discussed. The analysis does not include impacts that occur in Mexico.

2.2.7 Minority and Low-Income Populations

Several commentors pointed out that Imperial County is a poor and largely minority population, which must be protected. It was also suggested that issues related to environmental justice be addressed for the Mexican population as well.

EIS Analysis: The EIS evaluates the potential for disproportionately high or adverse human health or environmental impacts on minority and low-income populations in the region. Environmental justice impacts in Mexico are not analyzed as part of the EIS.

2.2.8 Socioeconomics

Tourism: A commentor suggested that the effects of the proposed project on tourism be examined as part of the analysis.

EIS Analysis: The socioeconomic analysis in the EIS includes employment and economic effects resulting from construction of the transmissions lines on Imperial County. Impacts on tourism are included as part of the analysis of the services sector of the county economy.

2.2.9 Homeland Security

One commentor asked that a homeland security risk assessment be developed.

EIS Analysis: A discussion of homeland security issues is beyond the scope of the EIS.

2.2.10 Geology, Soils, and Seismicity

Soil: One commentor asked that impacts on soil be included in the EIS.

Earthquake Response Measures: The commentor expressed concern over the ability of the power companies to respond to a seismic event that could affect the transmission of power to the United States. The commentor also noted that construction of the transmission lines must meet or exceed seismic zone 4 requirements and wondered what construction standards were in Mexico.

EIS Analysis: The EIS describes the geologic, soil, and seismic characteristics of the area traversed by the transmission lines and assesses earthquake-related impacts. Structural requirements for buildings in Mexico are beyond DOE's authority and are not addressed in the EIS.

2.2.11 Visual Resources

Some commentors suggested that the visual impact of the two new transmission lines be examined as part of the EIS.

EIS Analysis: The visual impacts of the project on the landscape are assessed for the United States.

2.2.12 Land Use and Recreation

One commentor noted that rising salinity could affect recreational fishing in the Salton Sea.

EIS Analysis: The EIS includes an analysis of the impacts and alterations to existing land use, including recreation, from construction of the transmission lines.

2.2.13 Technology Issues

General: Numerous commentors expressed concern over technologies currently being used at the power plants for cooling and emissions control. The primary concern was that technologies other than those currently in use could potentially reduce the adverse effects of power production on the environment. Many commentors suggested the use of alternative technologies, such as dry cooling. There was a request for the construction standards and techniques utilized in Mexico to be reviewed and assessed as part of the EIS.

Dry Cooling: Several commentors mentioned dry cooling and suggested that using dry (air) cooling methods at the power plants would reduce adverse effects to air and water that have been associated with wet (evaporative) cooling. They believed that the EIS should investigate alternative cooling methods, including dry cooling and a combination wet-dry system.

Selective Catalytic Reduction System: Several commentors mentioned the SCR systems (also called selective catalytic converters) that were going to be installed at the plants to help reduce NO_x emissions. Commentors pointed out that even with this technology, there will be a significant increase in measurable pollutants in the Imperial Valley; it was also noted that SCR systems do not reduce CO emissions. Another commentor wanted DOE to require that the turbines be equipped with SCR technology before granting the permit. Commentors also requested that emissions at the plant be measured and made public prior to and after the installation of this technology. The cost of installing SCR technology should be examined.

Best Available Control Technology: Some commentors wanted Best Available Control Technology for pollutants to be installed on all power generating units at the two power facilities. It was also stated that the offset of all emission increases associated with the operation of the two projects be secured according to the Clean Air Act.

Air Monitors: Commentors requested that monitoring stations be placed around the power plants to record air emissions (including particulates and smog forming pollutants) from the plants. It was also requested that the monitoring information be made public.

Alternative Energy: A commentor suggested that geothermal energy would be more appropriate for the Imperial Valley region for the generation of electricity than gas-fired electrical generating plants. The commentor noted that currently there are five geothermal areas within Imperial County being used to generate electricity, and that there are generally fewer emissions from a geothermal plant than from a gas power plant.

EIS Analysis: The EIS includes a discussion of best available technology. Dry cooling and SCR systems are included in the discussion. The EIS does not address air monitoring stations. An analysis of alternative energy sources is beyond the scope of this EIS.

2.2.14 Mitigation

Mitigation of All Impacts: Several commentors suggested that all impacts from the construction and operation of the power plants and the transmission lines be fully mitigated as a condition of approving the transmission lines. Offsets to mitigate any impacts, such as paving roads to limit the amount of dust in the air or retiring older, more polluting automobiles, were specifically mentioned. Another suggestion was to establish a mitigation fund for use in establishing offsets. A final comment on the offsets was a request that they be established in the United States or if they were established in Mexico, that Imperial County officials be allowed to inspect the offsets.

Emergency Response Measures and Reliability Study: One commentor was concerned about the lack of coordinated emergency response measures in the event of an aircraft crashing into one of the towers, lines, substation, or other part of the power grid. Another commentor suggested that a group of independent, binational observers be established to monitor compliance with all emergency response measures; and that this should be established and agreed to by the companies and agencies involved, as an integrated part of the EIS. Several commentors requested that information pertaining to emergency outage plans and security from terrorist acts be examined as part of the EIS.

EIS Analysis: Appropriate mitigation measures and/or offsets are discussed for each technical area. Issues related to emergency outage plans are covered in a separate reliability analysis being conducted by DOE that is not part of the NEPA analysis. This anlaysis would consider outages from a variety of circumstances, such as an aircraft collision with the power lines.

2.2.15 Cumulative Impacts

Cumulative Air and Water Issues: Several commentors requested that the EIS examine the cumulative effects of the transmission lines and the power plants in the larger context of activities occurring in Imperial Valley. The cumulative effects of the project on the Salton Sea, the New River, fishing, and on farming were all mentioned specifically. The commentors suggested that the analysis examine the impacts from both construction and operation of the power plants. One commentor requested that impacts in Mexico be included.

Effect of Additional Power Availability in Imperial Valley and Mexico: Some commentors requested that the EIS analysis examine the potential impacts associated with the new power supplies available in the region as a result of the projects. The commentors stated that the additional power would lead to increased development of the area through housing and industry.

Construction of Additional Power Plants: Some commentors wanted the construction of a second power plant by each of the companies to be considered in the cumulative impact analysis. They believed this was reasonable since each transmission line would contain two circuits.

Construction of a New County Cargo Airport: A commentor stated that the area selected for the construction of the transmission lines is in the vicinity of a proposed location for a new county cargo airport. It was suggested that the EIS examine the cumulative effect of such an airport sited near the transmission line.

50-Year Comprehensive Cumulative Analysis: A commentor suggested that a 50-Year Comprehensive Cumulative Analysis (CEA) be conducted for this project. The CEA should consider things like U.S. and Mexican growth projections, environmental factors, major equipment maintenance and operational activities, and overall energy requirements. Rather than being a Washington-based project, it should use local binational governmental and nongovernmental organizations involved in long-term planning for the Mexicali and Imperial Valley areas.

EIS Analysis: The EIS analyzes the potential cumulative impacts in the United States of the proposed transmission lines and the power plants when added to other past, present, and reasonably foreseeable future actions. This includes potential cumulative impacts to air quality in the region and impacts to the Salton Sea. All reasonably foreseeable future power plants are included in the cumulative impacts analysis. A 50-year comprehensive cumulative impact analysis is outside the scope of the EIS. Also, the EIS does not address actions taken by nongovernmental agencies.